## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 29 April 2004 (29.04.2004)

(10) International Publication Number WO 2004/034979 A3

- (51) International Patent Classification7: C07K 16/00
- C12P 21/08,
- (21) International Application Number:

PCT/US2003/032543

- (22) International Filing Date: 14 October 2003 (14.10.2003)
- (25) Filing Language:

(26) Publication Language:

English

(30) Priority Data:

60/418,768

15 October 2002 (15.10.2002)

- (71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 1111 Franklin Street, 12th Floor, Oakland, CA 94607-5200 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SHI, Wenyuan [US/US]; 10833 Le Conte Avenue, Los Angeles, CA 90095 (US). GU, Fang [CN/US]; 10833 Le Conte Avenue, Los Angeles, CA 90095 (US).
- (74) Agent: BORDEN, Paula, A.; Bozicevic, Field & Francis LLP, 200 Middlefield Road, Suite 200, Menlo Park, CA 94025 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 16 September 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MONOCLONAL ANTIBODIES SPECIFIC FOR CARIOGENIC BACTERIA

(57) Abstract: Antibodies, as well as binding fragments and mimetics thereof, that specifically bind to Actinomyces or Lactobacillus cariogenic bacteria are provided. The subject binding agents, e.g., antibodies, fragments and mimetics thereof, etc., are characterized in that they are highly sensitive and specific for their target bacteria. Also provided are methods and devices for screening samples for the presence of cariogenic bacteria. In addition therapeutic treatment protocols and compositions are provided.